

BROOME TECHNICAL COMMUNITY COLLEGE MASTER PLAN

ARCHIVES

BTCC Master Plan

ACKNOWLEDGMENTS

BROOME COUNTY

Edwin L. Crawford, County Executive

LEGISLATURE

Earle D. Ridley, Chairman
Frank Buongiorno
Joseph F. Garbarino
William T. Hanifin
Richard M. Hill
Ralph J. Howard, Jr.
John Hudanich
Harold Kinder
Victor A. Lacatena
John W. Lynch
Melbourne E. Niles
Francis A. Norton, Jr.
Robert C. Ott
Christopher C. Renda
Salvatore R. Rizzi
Norman Shadduck
Holmes W. Somers, Jr.
Paul L. Vosbury
James E. Wahl

EDUCATION COMMITTEE

Harold Kinder, Chairman
Francis A. Norton, Jr.
Norman Shadduck

PLANNING DEPARTMENT

Joseph M. Missavage, Commissioner

BROOME TECHNICAL COMMUNITY COLLEGE

BOARD OF TRUSTEES

Darwin R. Wales, Chairman
James M. Davidge
Carl R. Gitlitz
Robert F. Kelly
Wilbur J. Kupfrian
Richard H. Parish
Harry D. Prew
Frank P. Silkman
Miss Linda Stanford

BUILDING COMMITTEE OF THE BOARD OF TRUSTEES

Wilbur J. Kupfrian, Chairman
Robert F. Kelly
Harry D. Prew
Darwin R. Wales, ex officio

ADMINISTRATIVE OFFICERS

Cecil C. Tyrrell, President
Herbert L. Durst, Dean
Harvey N. Roehl, Administrative Dean

STATE UNIVERSITY OF NEW YORK

BOARD OF TRUSTEES

Samuel B. Gould, Chancellor of the University
Mrs. Maurice T. Moore, Chairman
James J. Warren, Vice Chairman
Clifton W. Phalen
Warren W. Clute, Jr.
Joseph E. Davis
Charles E. Diebold
Manly Fleischmann
George L. Hinman
Morris Iushewitz
Mrs. Bronson A. Quackenbush
John A. Roosevelt
Oren Root
Roger J. Sinnott
Don J. Wickham

UNIVERSITY DEAN FOR TWO YEAR COLLEGES

Dr. Sebastian V. Martorana, Vice Chancellor
Dr. Kenneth Doran, Associate University Dean

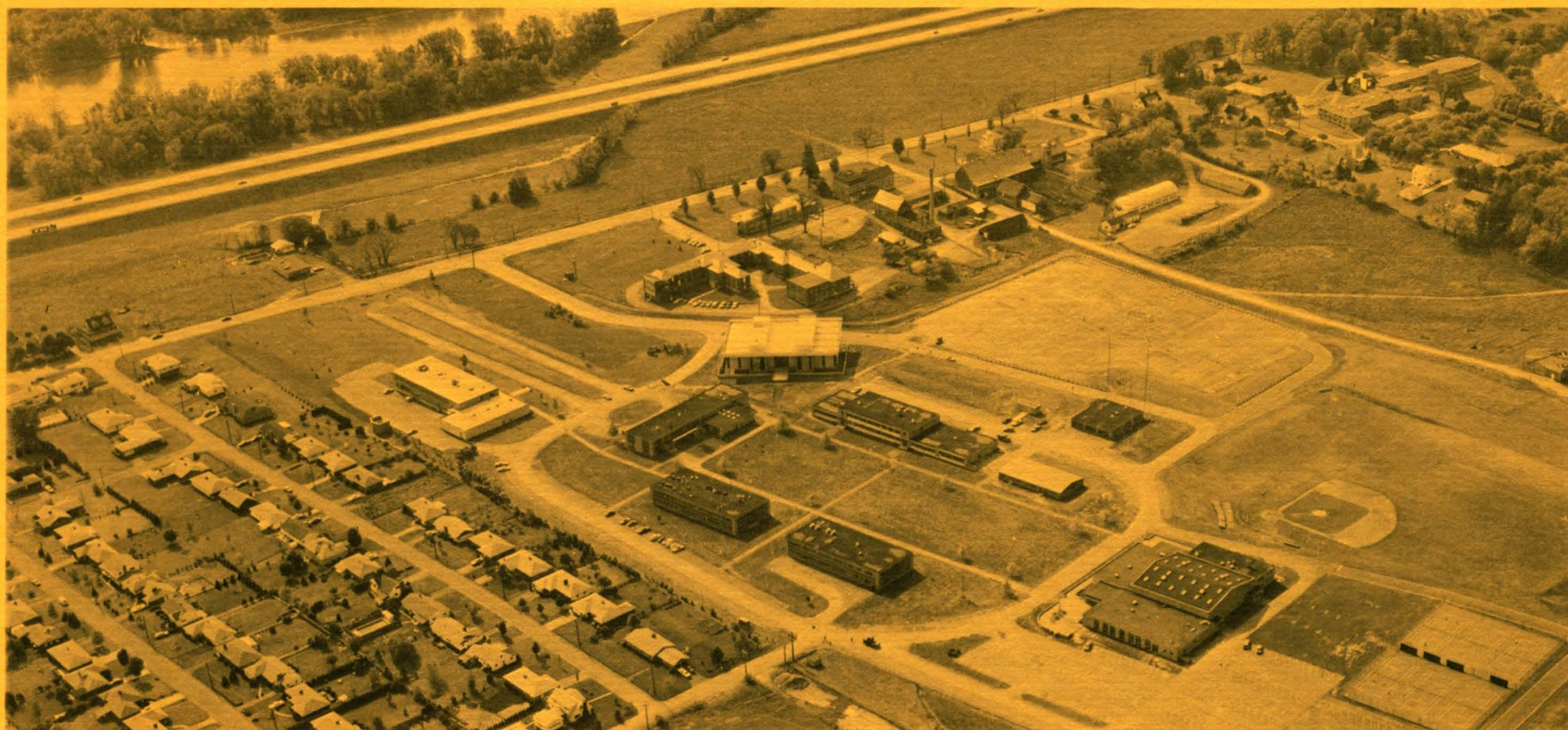
OFFICE OF ARCHITECTURE AND FACILITIES

Elwin W. Stevens, University Architect
Ellis M. Rowlands, Director of Community College
Facilities Planning
Dauno M. Makitalo, Assistant Director of Community College
Facilities Planning

CONTENTS

ACKNOWLEDGEMENTS	i.
THE COLLEGE	1
The Campus	
The Community	
Growth and Expansion	
History	
Degree Programs	
Climate	
THE MASTER PLAN	9
Master Plan	
The Site	
Phasing	
Expansion	
ANALYSIS AND DEVELOPMENTAL PATTERNS	19
Site Characteristics	
Land Use	
Building Uses	
Circulation	
Outdoor Areas	
Utilities	
APPENDIX	37
Space Requirements	
Master Plan Criteria	
Evaluation of the Present Student Center-	
Physical Education Building	
Budget	
Credits	

THE COLLEGE



Broome Technical Community College is a comprehensive community college of the State University of New York. It has programs designed to prepare graduates for immediate employment and for transfer to four-year colleges and universities at the third-year level.

In addition to its daytime enrollment, which numbered about 1,820 in September 1968, the College has a Continuing Education Division which had more than 2,000 part time evening students in the fall of 1968 and more than 900 taking courses during the Summer Program.

The College is co-educational, publicly-supported, and has historically attracted about two-thirds of its student body from within Broome County.

The day student body can be classified into four fairly equal parts, based on study objectives. About one-fourth is enrolled in university-parallel or transfer programs, one-fourth in the business program, one-fourth in engineering technology curricula, and one-fourth in medically-related courses. The student-faculty ratio is 15:1.

The College is sponsored by Broome County, supervised by the State University of New York, and accredited by both professional and educational organizations.

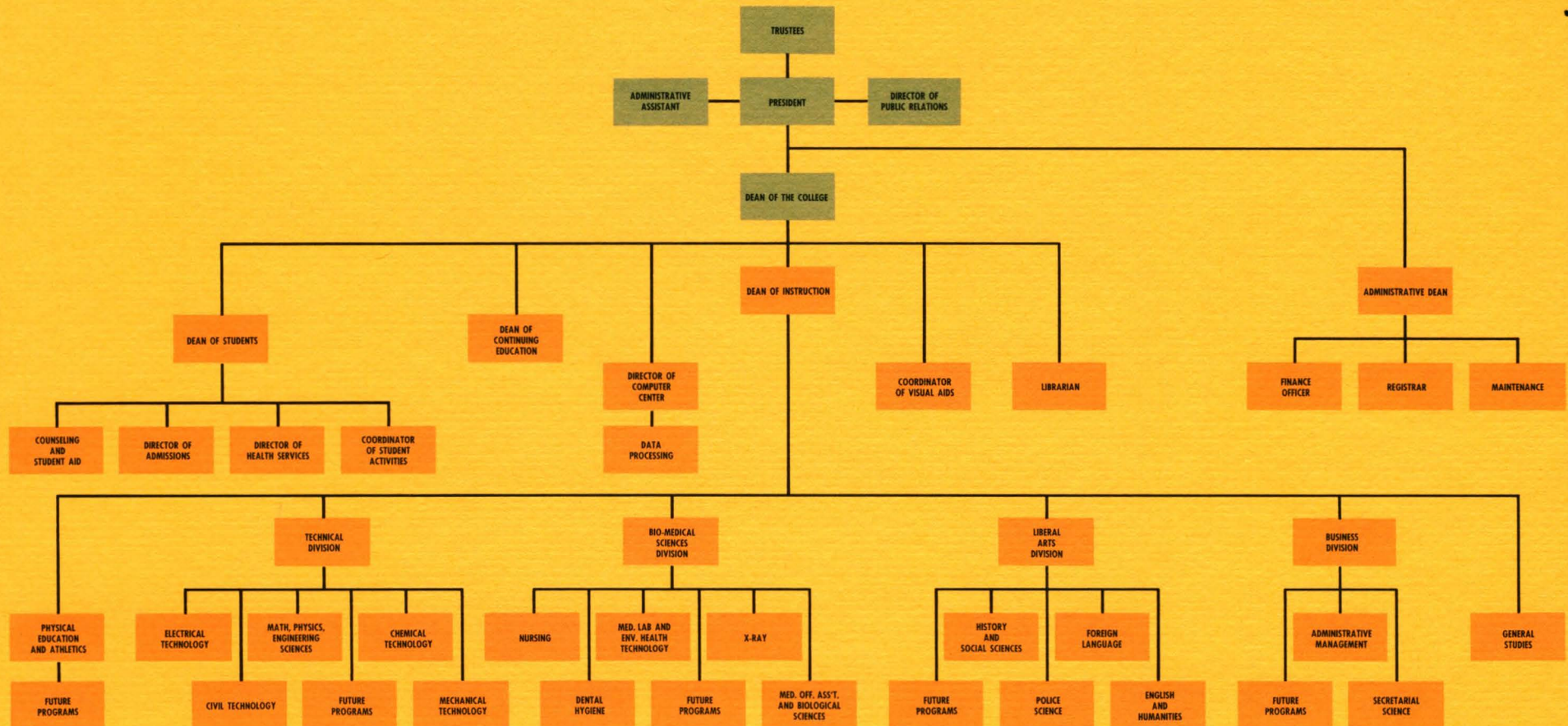
THE CAMPUS

The Broome Tech campus is located three miles north of Binghamton on Upper Front Street, which is Route 11 and Route 12 at this point. It is immediately accessible to Exit 5 of the Interstate Route 81 near the juncture of Route 17. Eight of the nine present buildings form a quadrangle to make a compact campus layout.

The present permanent buildings are two stories high, of modern functional design, and made of brick and colored panel-wall facing. They lie in a suburban setting approximately in the center of the College's 55 acres of land. The present campus is surrounded on three sides by Broome County lands and on the north by a residential neighborhood.

In addition to classrooms and laboratories, the campus has its own cafeteria, a gymnasium and athletic fields, and a theater. These facilities add up to make the campus a multi-million dollar investment in the youth of Broome and surrounding counties. This investment will soon be substantially increased as the College expansion program is developed.

PROPOSED ORGANIZATION CHART



THE COMMUNITY

Broome County is an industrial and agricultural area in New York State's Southern Tier. It is in the approximate center of the State, measuring from east to west, and its southern extremity touches the northern boundary of Pennsylvania.

Binghamton, the principal city in Broome County, is an integral part of the community known as the Triple Cities, composed of Binghamton, Johnson City, and Endicott. According to the 1966 Special Census, the population of Binghamton is 69,435; the population of Broome County is 222,122. Diversified industry has made the Community economically sound.

The College has become an integral part of the Community since it was started in 1947. Many of the campus facilities are offered without charge for educational use by responsible organizations, and the curricula are designed to help fill the economic needs of the County.

GROWTH AND EXPANSION

The rapid growth in student enrollment in recent years has made it necessary for the College to embark on a substantial expansion program. A new Library Building was opened during the 1967-68 school year and Titchener Hall was completed in 1963. The original Broome Tech campus was constructed in 1956 to accommodate 900 students,

which was about three times the student enrollment at that time. The student body reached about 1,800 in the fall of 1968. With the new construction planned, the College will accommodate an anticipated student body of 3,400.

HISTORY

The first class was graduated from Broome Tech in 1949. These students had entered what was then known as the New York State Institute of Applied Arts and Sciences at Binghamton in the fall of 1947. The original institute was one of five founded in the State in 1946, following the pattern of six agricultural and technical institutes which New York had established earlier in the century. The first programs offered were all occupational in nature and included Chemical, Electrical and Mechanical Technologies, as well as Medical Office and Technical Office Assistants courses.

In 1953 New York relinquished operating control of the school to a new sponsor, Broome County, under provisions of the newly-enacted State Community College Law; the name was changed to Broome County Technical Institute. In 1956 the name was again changed to its present one, Broome Technical Community College, to reflect the increasingly comprehensive nature of its educational offerings.

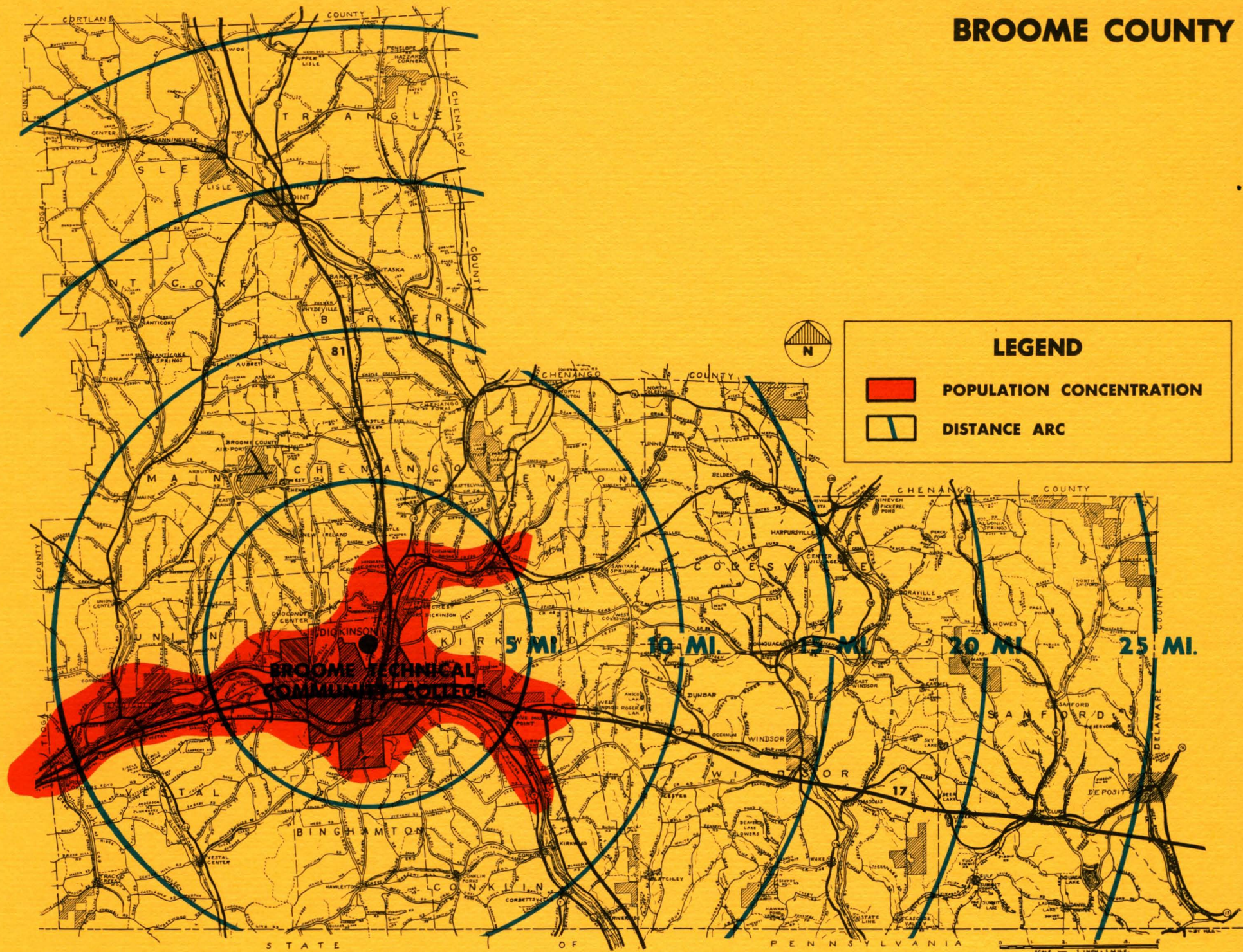
In keeping with the comprehensive objectives of this community college, a university-parallel curriculum was instituted in the Engineering Sciences in 1959; a two-year program of Liberal Arts and Sciences started in the fall of 1962; a transfer program in Business Administration was added in 1963; X-Ray Technology was added in 1965; Medical Laboratory Technology in 1966; Nursing and Environmental Health Technology in 1967.

For its first five years, the College was housed in a refurbished armory in downtown Binghamton. This building was destroyed by fire in September of 1951, and for the next five years Kalurah Temple and two other buildings in the city provided temporary quarters. In 1957 the College moved to its present campus location north of Binghamton on Route 11.

DEGREE PROGRAMS

Objectives of the College are to provide the environment and the experiences which promote the students' vocational competence, individual growth and social responsibility and to commit the resources of the College to the business, industrial, educational and cultural enrichment of the community.

BROOME COUNTY



Technical: In the area of technical education, the College offers five programs — Mechanical Technology, Chemical Technology, Electrical Technology, and Civil Technology — to prepare graduates for immediate employment. Engineering Science is offered for the graduate planning to transfer to a four-year program.

Business: The Business curriculum is designed primarily to prepare graduates for immediate employment in one of four fields — Engineering Secretarial, Executive Secretarial, Accounting, and Marketing and Sales. In addition, there is a fifth option, Business Administration, for the graduate planning to transfer to a four-year program.

Liberal Arts & Sciences: This curriculum is a university-parallel course, designed especially for the student who wishes to transfer to a four-year college or university after graduation. In addition, students in all other College programs spend at least one-fourth of their time studying Liberal Arts subjects.

Health Sciences: Opportunities for men and women interested in the health services field are provided in six areas — Dental Hygiene, Medical Office Assistant, Nursing, Medical Laboratory Technology, X-Ray Technology and Environmental Health Technology. Graduates of these

curricula are prepared to take positions in their fields immediately after graduation, and are also qualified to take whatever licensing examinations their professions require.

Continuing Education Division: Both credit and noncredit courses for adults are offered year-round during the evenings and during the summer day session.

Part Time Day Students: Individuals may register for part time day enrollment for a maximum of 6 credit hours.

General Studies Certificate Program: This is a preparatory program for students who either lack the minimum requirements for admission to the regular programs of the College, or those who have been out of school for several years.

Diploma Nursing: Nurses in diploma training programs at Binghamton General and Binghamton State Hospitals take the academic portion of their work at Broome Tech. Under this program these students may participate in co-curricular activities of the College.

CLIMATE

Except for differences which are due to geographical locations and topographical effects, the climate

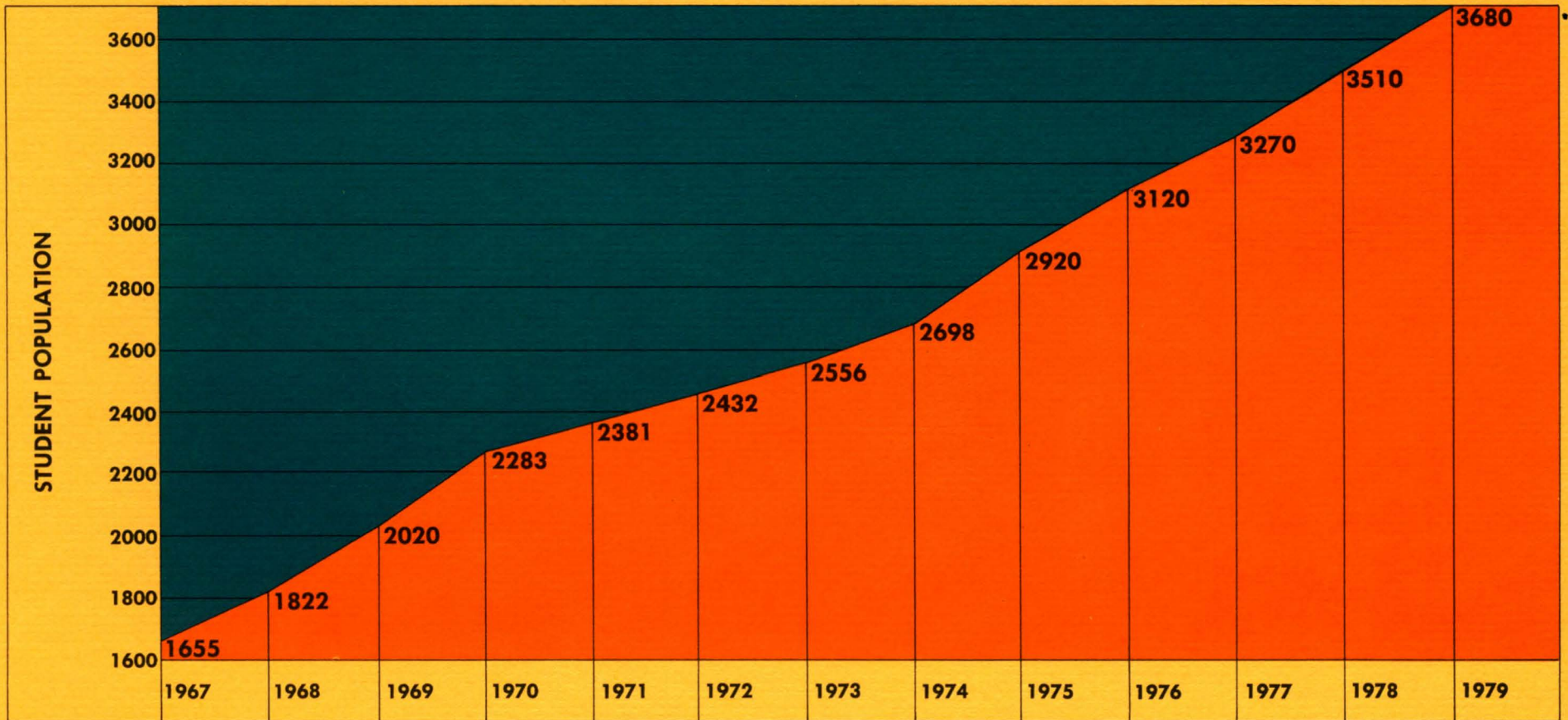
of Broome County is representative of the humid area of the Northeastern United States and is also primarily continental in type, which is characterized by frequent and rapid changes. In the summer months, it is seldom that either high temperature or humidity becomes depressing to humans. Winters are usually cold, but not commonly severe. The transitional seasons, spring and autumn, are the most variable of the year.

The annual precipitation is rather evenly distributed throughout the year. However, the greatest average monthly amounts occur during April through September. The average seasonal snowfall is slightly more than 50 inches in Binghamton and about 85 inches at Broome County Airport. Broome County is subject to frequent cloudiness, winter snow flurries, and advection fogs, which serve to reduce the amount of sunshine that is received.

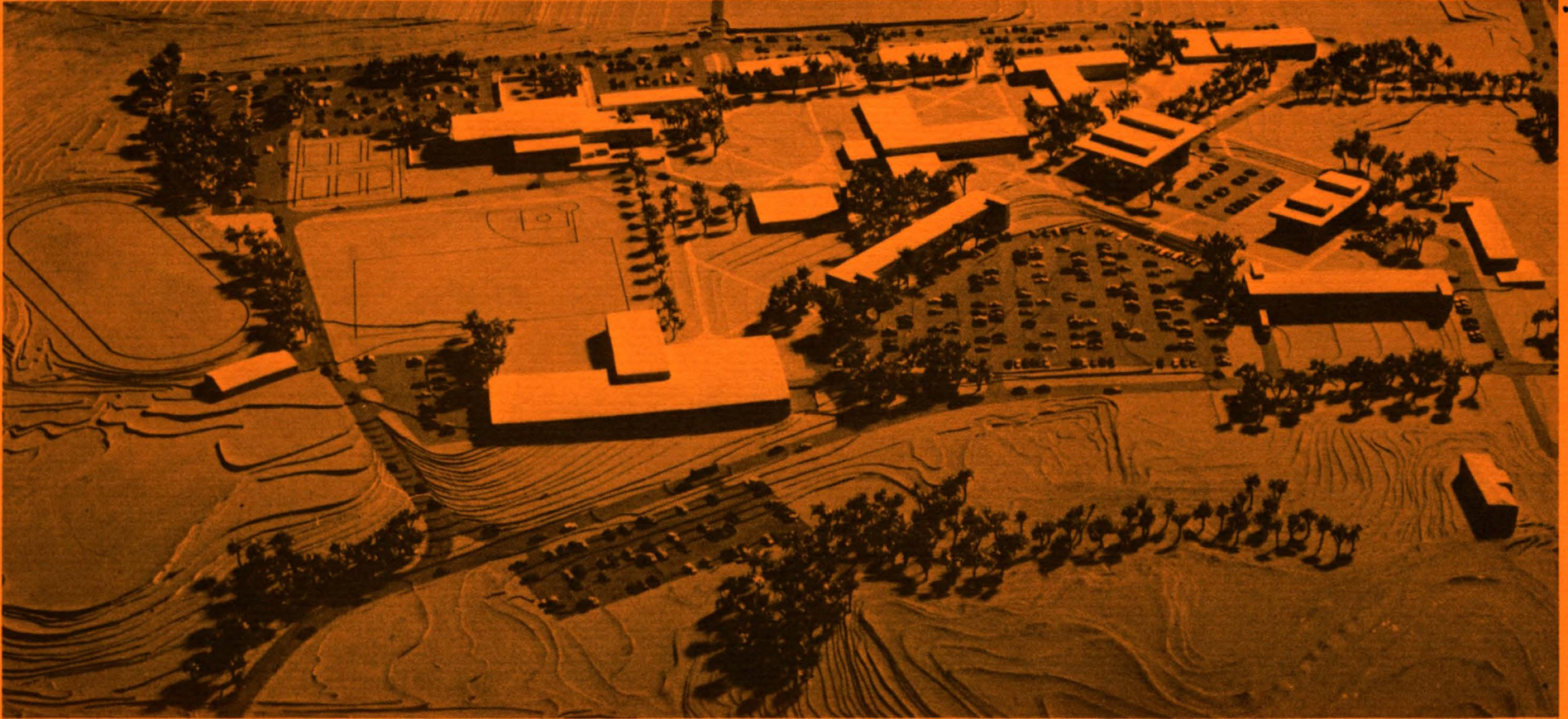
For the most part, the winds in Broome County have northerly and westerly components and the velocities are moderate.

Since the natural variability of the climate has a stimulating effect on the inhabitants of the area, a high standard of human activity in manufacturing, agriculture, and commerce is found — an unqualified asset of the locality.

ENROLLMENT PROJECTION 1967-1979 FULL TIME STUDENTS



THE MASTER PLAN



MASTER PLAN



BUILDING KEY

A Future Dormitories	G Civil	M Maintenance Supervisor's House
B Student Center	H Mechanical	N Jail Barracks
C Electrical	I Police Science	O Business
D Liberal Arts	J Library	P Maintenance & Communication
E Administration	K Chemistry	Q Physical Education
F Titchener	L Health Sciences	R Storage

MASTER PLAN

The development of the physical facilities of the College was based on the evaluation of existing physical conditions and the anticipated needs of the College with a projected enrollment of 3,400 students. Added to the present facilities will be four new buildings — Health Sciences, Chemistry, Business, and Physical Education; additions and alterations are anticipated on six existing buildings — Administration, Mechanical, Student Center, Maintenance, Temporary Classroom, and the Broome County Welfare Building. The roadway system and utilities will be altered to accommodate the proposed expansion.

The proposed expansion will assume a configuration that will integrate new structures with existing buildings to form a cohesive site plan. The proposed buildings will be grouped around various courtyards and quadrangles; their facades will have surface treatments compatible with the two major existing styles. Major traffic will encircle the College with parking lots on the periphery; all buildings will have a service access. Pedestrian pathways will assume a more natural configuration.

The physical form of the Master Plan was developed from stringent criteria set forth at the onset of the project. These are included in the Appendix and are anticipated to be followed as guidelines in the realization of the Master Plan.

THE SITE

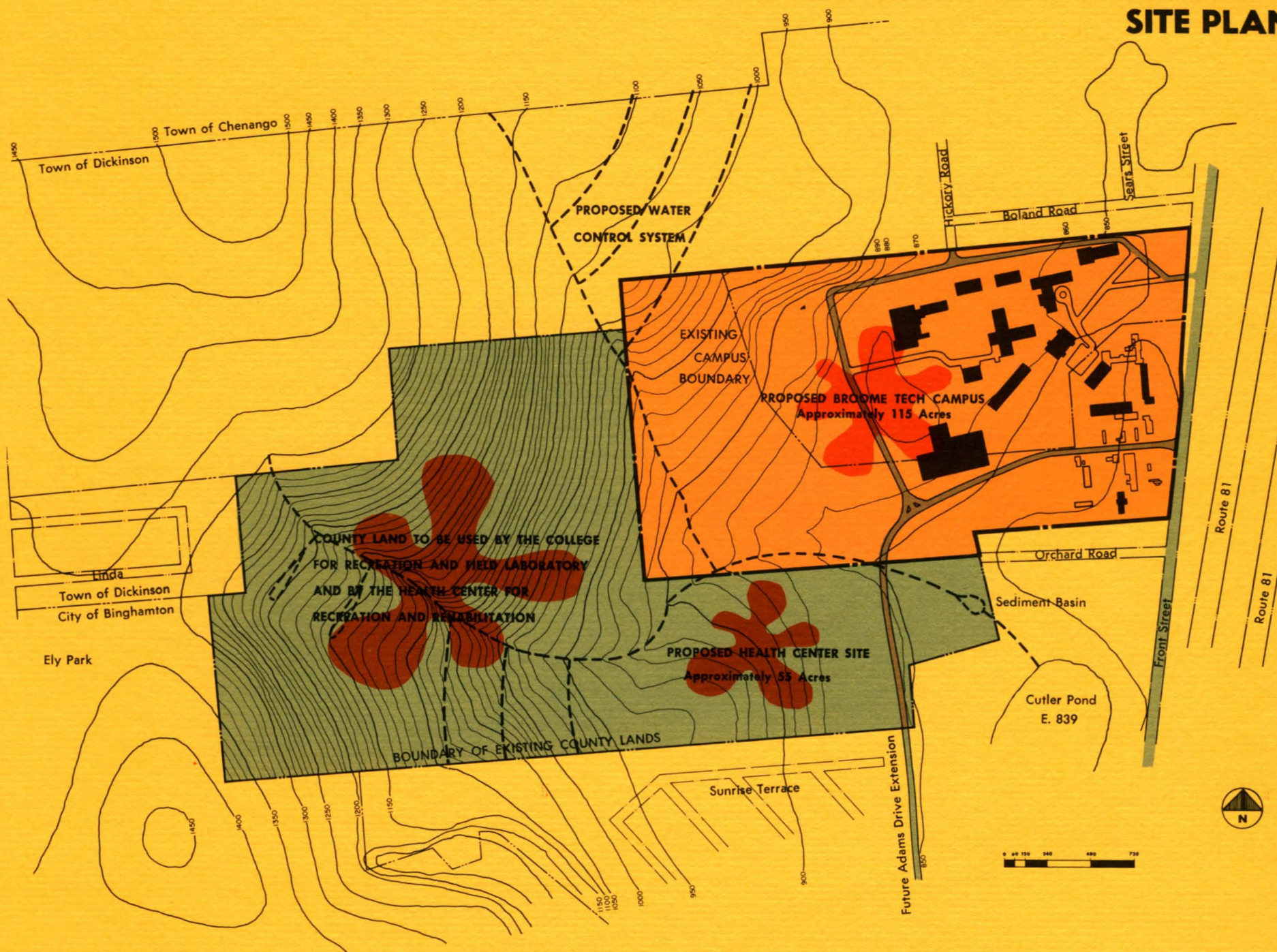
The present 55 acre College site is surrounded on the north by a residential area, on the east by Front Street, and on the south and west by land owned by Broome County. The County has for several years operated an infirmary and jail farm on these lands; now these buildings are no longer in use and the land is left unoccupied. The College land will be expanded to the south and to the west so as to increase its size to 115 acres: The monetary value of the portion of the County land that will be turned over to the College will contribute towards the County's share of participation in the College expansion program.

Furthermore, the College will not be limited to the use of only those lands within its physical boundaries. The County lands to the west, except those lands designated for the Broome County Health Complex, can be used for a Biological Field Laboratory and recreation, which may include a pond, nature trails and a ski slope. At the request of the County the U. S. Soil Conservation Service is presently conducting a study concerning a system of water control in conjunction with the

Master Plan. Their recommendations will not only attempt to alleviate drainage problems of County lands, College athletic fields, and surrounding private parcels, but also with proper management provide for College field ecology laboratories and recreation spots. The County has applied for a government study which may result in financial aid to help offset the cost of this project. The existing Broome County Sheriff's Department pistol training range immediately to the west of the proposed College property will remain; use of this facility should be given to the students in the College's new Police Science Program.

The existing County Jail Farm buildings, County Infirmary Building, and maintenance buildings will be demolished. The existing County Jail Barracks will remain until new quarters are provided; therefore, the building should be considered temporary for all College planning. The County Welfare Building will also remain; this facility will be given to the College as soon as the occupants can be relocated. Both the Jail Barracks and the Welfare Building will require heating facilities since the central boiler plant servicing these buildings will be demolished.

SITE PLAN



PHASING

Implementation of the Master Plan is recommended in two projects which came about as a result of (1) the most economical use of existing College and County facilities during the construction stages, (2) the most pressing space needs of the College, and (3) the stages at which funds will be made available by the State and County governments.

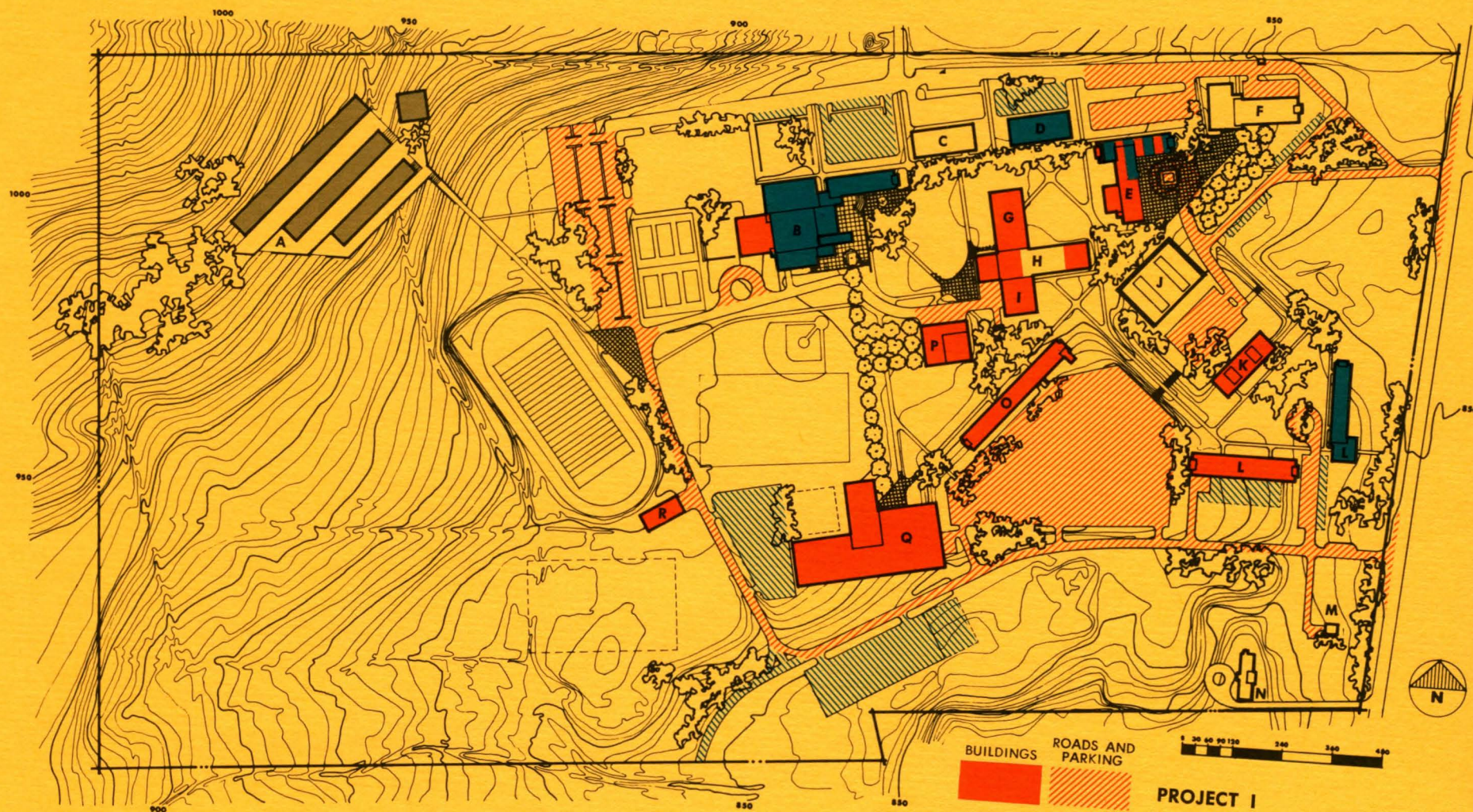
Project I: The first phase of Project I will include extensive alteration of utilities that will eventually service both Project I and Project II; expansion and sitework including excavation, rough grading, road relocation, and the addition of some parking facilities. As soon as possible after the first phase is completed, construction will begin on four new buildings — Business, Health Sciences, Chemistry, and Physical Education; additions to Administration, the Student Center for dining, Mechanical Technology for Civil Technology and Police Science, and Maintenance; relocation of the Temporary Classroom Building for storage of maintenance and physical education equipment. Top priority should be given to both the Student Cen-

ter, in order that a critical dining inadequacy may be rectified, and the Physical Education Building, so that this facility may vacate the Student Center as quickly as possible. Although the need for all Project I spaces is critical, building construction will probably not begin until early 1970; however, construction of all buildings ought to be started during 1970.

Project II: Project II will encompass all construction that may not proceed until certain portions of Project I are completed. These include additions and alterations to the County Welfare Building for conversion to additional Health Sciences space, the Student Center, the Science Building for conversion to Liberal Arts offices and classrooms, and the Administration Building. Site construction in this project will be limited to expansion of parking areas as needed. Because of the dependance of Project II construction on the completion of Project I buildings, construction will probably be delayed until 1971 or later.

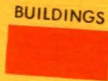





All site work not included in the description of the above two projects will be included with individual buildings as part of the construction contracts.

PHASING



BUILDING KEY

- | | | |
|----------------------|-------------------|----------------------------------|
| A Future Dormitories | G Civil | M Maintenance Supervisor's House |
| B Student Center | H Mechanical | N Jail Barracks |
| C Electrical | I Police Science | O Business |
| D Liberal Arts | J Library | P Maintenance & Communication |
| E Administration | K Chemistry | Q Physical Education |
| F Titchener | L Health Sciences | R Storage |

- | | | |
|---|---|----------------------------|
|  BUILDINGS |  ROADS AND PARKING | PROJECT I |
|  BUILDINGS |  ROADS AND PARKING | |
|  | | EXISTING UNALTERED |
|  | | FUTURE CONSTRUCTION |

EXPANSION

The need for additional expansion or provision for facilities not envisioned during the Master Plan study must not be discounted. There is potential for expansion at the several locations indicated.

EXPANSION



BUILDING KEY

A Future Dormitories	G Civil	M Maintenance Supervisor's House
B Student Center	H Mechanical	N Jail Barracks
C Electrical	I Police Science	O Business
D Liberal Arts	J Library	P Maintenance & Communication
E Administration	K Chemistry	Q Physical Education
F Titchener	L Health Sciences	R Storage

	PLANNED FACILITIES
	POTENTIAL FOR HORIZONTAL EXPANSION
	POTENTIAL FOR VERTICAL EXPANSION

ANALYSIS AND DEVELOPMENTAL PATTERNS



SITE CHARACTERISTICS

The existing College, a 55 acre site, which is located on the west side of Upper Front Street, is bounded on the north by a residential neighborhood, on the east by Front Street, and on the south and west by Broome County lands. Because of the limiting surrounding land uses on the north and east, the College will be expanded to the south and west where land is readily available. The proposed site will extend to the south partially to the edge of Broome County lands and partially to an arbitrary boundary in the general location of a natural topographical feature, which will separate the College from the proposed Health Complex. The western boundary will be extended to an established Broome County lands boundary jog where the College lands will terminate in a straight line.

The proposed site is situated on a relatively flat plain in the Chenango River Valley; hills appear on every horizon. Slopes range from 0% to 5% over much of the site; however, grades increase to from 5% to 15% towards the proposed western boundary. Almost the entire site is composed of

Chenango and Howard gravelly loams which are considered to be moderately acid and well drained soils. Much of the site can be built upon economically.

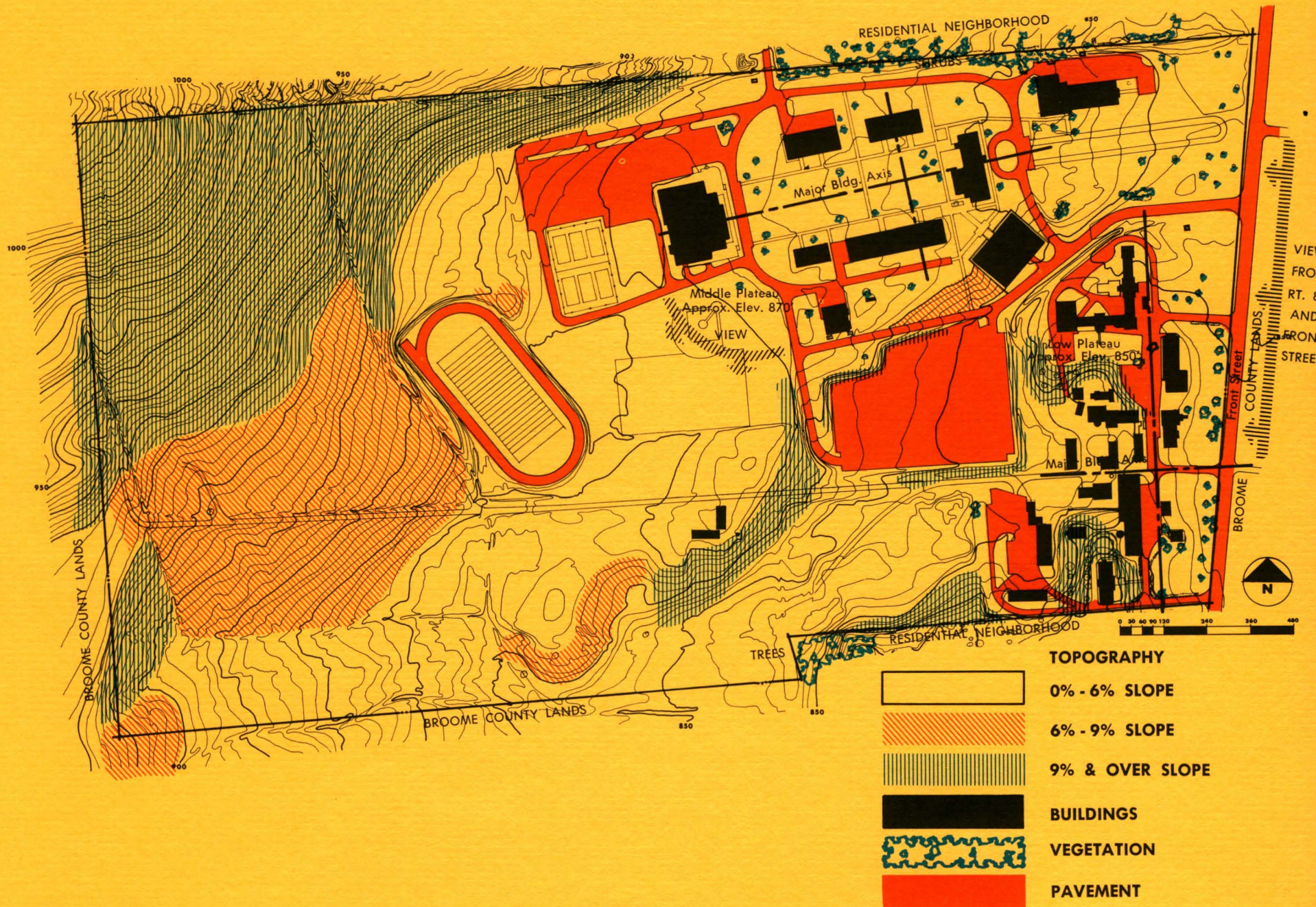
Vegetation is sparse on both the existing and proposed site; because of predominantly acid soils, evergreens would thrive on most of the site. A more detailed soils analysis, however, must be made to confirm local differences in soil contents.

The views of the surrounding hills dominate all the vistas from within the site. Proposed structures and landscaping will be positioned in such a way as to enhance the vistas rather than obscure or dominate them.

The views from the various approaches to the College are important to its image. Presently these views are weak and without definition. The great possibility of recognition from both Front Street and Interstate 81 as well as from the two campus entrances from Front Street, have been exploited in the proposed Master Plan.

The proposed site offers an excellent combination of topography, soil characteristics, and aesthetic potential for the expansion of College facilities.

SITE CHARACTERISTICS



LAND USE



LAND USE

In addition to one temporary and four permanent classroom buildings, the existing campus includes several buildings which serve the community as well as the College — the Library, the Student Center-Physical Education Building, the Administration Building and the Maintenance Building (Civil Defense). These buildings are distributed among the classroom buildings in no perceivable order. Several permanent obstacles limit economical physical expansion. These include (1) a residential neighborhood to the north, (2) several athletic fields to the west of the main building group, and (3) a large parking lot to the south of the campus. These factors suggest expansion to the southeast and southwest of the main building group.

The proposed Master Plan exploits the latent qualities of the existing functional distribution in order to form an orderly, logical land use pattern. New buildings will be situated so as to segregate the several existing service functions and the new Physical Education Building on the periphery of the campus for easy access by the public, yet proximate to the academic campus. There will be an intensification of classroom structures in the campus center with additional buildings expanded to the southeast and, to a lesser degree, to the southwest. Provision for the expansion of the present athletic fields will be to the southwest. Parking will be expanded so as to serve both the academic community and the public conveniently.

EXISTING BUILDING USES



BUILDING KEY

A Student-Center Gymnasium	G Mechanical	M Farm Buildings
B Electrical	H Library	N Police Garage
C Science	I Maintenance	O College Maintenance Supervisor's House
D Titchener Hall	J County Infirmary	P Storage Shed
E Administration	K County Welfare Building	Q County Jail Barracks
F Temporary Classrooms	L County Farm Buildings	

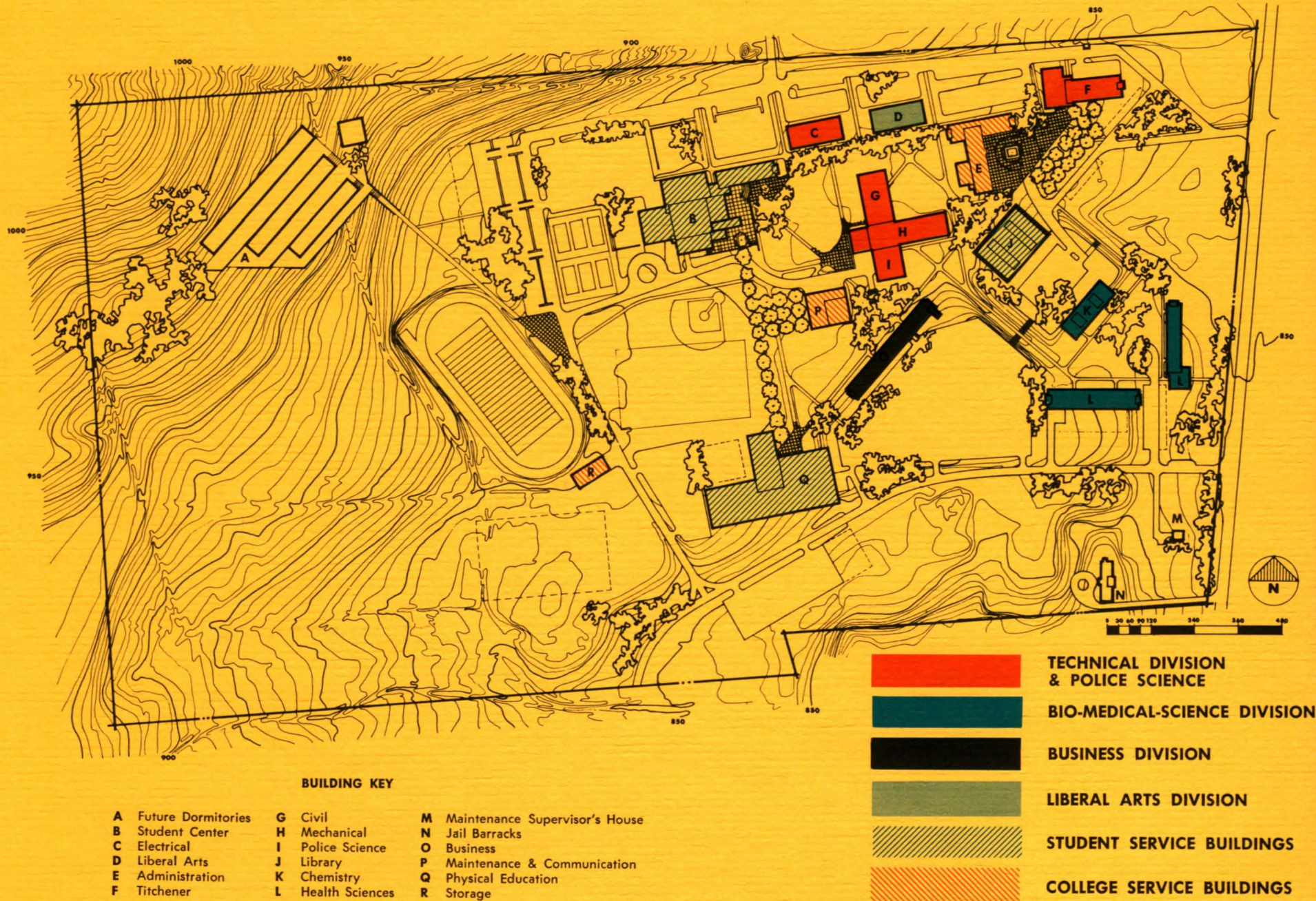


BUILDINGS TO REMAIN

**BUILDINGS TO REMAIN WITH
ADDITIONS OR ALTERATIONS**

BUILDINGS TO BE REMOVED

PROPOSED BUILDING USES



BUILDING USES

The proposed College property contains County Jail Farm buildings, County Health and Welfare buildings, and College buildings. All County buildings will be demolished except for the Jail Barracks, the College Maintenance Supervisor's House, and the Welfare Building. All College buildings will remain; these include the Library, the Student Center-Physical Education Building, the Administration Building, the Maintenance Building and four permanent classroom buildings — Science, Electrical Technology, Mechanical Technology; and Titchener Hall. A Temporary Classroom Building will be relocated.

Four new buildings will be added to the College — Health Sciences, Chemistry, Business, and

Physical Education. The present Student Center-Physical Education Building will be expanded and converted to a Student Center only. The Science Building will be converted to Liberal Arts classrooms and faculty offices. Mechanical Technology will be added to for expanded Civil Technology and new Police Science departments.

The Administration Building and the Maintenance Building will be expanded; the Welfare Building will be expanded and converted to additional Health Sciences space. The Temporary Classroom Building will be relocated and used for physical education and maintenance storage. The Electrical Technology Building, the Library, and Titchener Hall will remain unaltered.

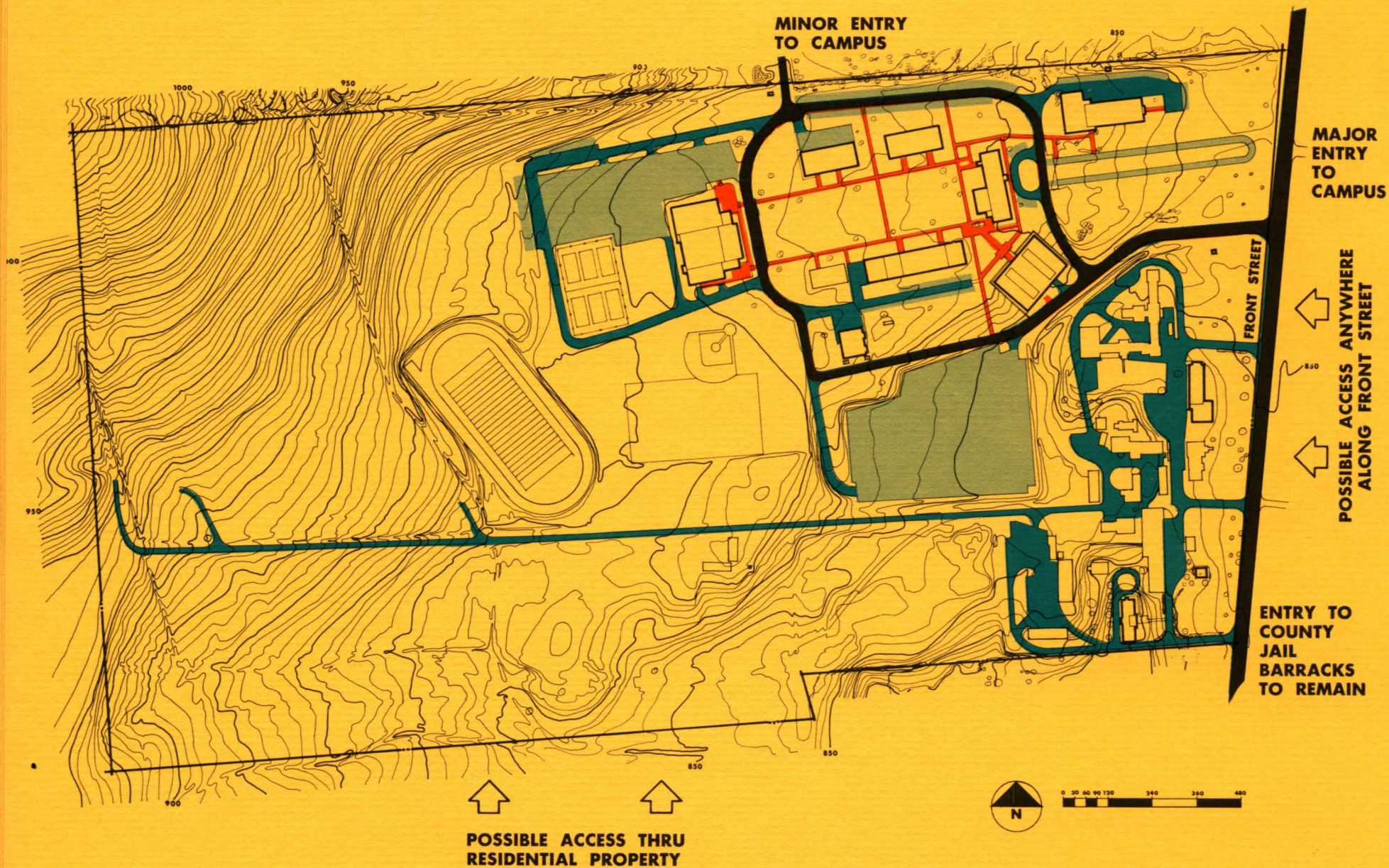
CIRCULATION

The present College is serviced by a single vehicular loop. The major entry to the loop is from Front Street; a secondary entry extends from the residential subdivision to the north at Hickory Road. The loop is in concept peripheral; however, in actuality the roadway isolates several buildings and parking areas from pedestrian spaces. Some existing buildings are provided with service access either through parking areas or by service roadways; loading docks are provided on some buildings. Other buildings, however, have no method of service other than the public entrances. The existing sidewalk network is a rigidly structured system laid out on a rectangular grid which does not function for most College origin-destination flow patterns. The existing parking areas contain 1,250 spaces.

The proposed College Master Plan will extensively alter the existing circulation patterns. The major roadway will skirt all College buildings and all parking areas except overflow lots. The existing and proposed parking areas can contain as many as 2,300 spaces. The single Front Street entrance will be replaced by two roadways connecting to Front Street. A northern entry will be constructed on a former abandoned entry road, and a southern entry will be built on a dirt roadbed that previously serviced the County Jail Farm. The minor entrance connecting to Hickory Road will remain. The southern entry road will be extended in the future to service the proposed Health Center Complex; eventually it should be further extended to complete a loop back to Front Street at the Route 81 Exit 5 intersection. Two bus stops will be pro-

vided: one along the roadway at the southern Front Street entrance, and a second to the south of the Student Center Building. The Student Center bus stop will include a bus turn-around, and each bus stop will have a sheltered waiting area. It is anticipated that bus service to the College will be extended in the future to the proposed Health Center Complex. All College buildings will have service access either through parking areas or by service roadways. All roadways within the College will be lightly traveled cul-de-sacs. The proposed walkway system is designed to provide more direct connections among buildings, parking areas, and open spaces. As the pedestrian traffic patterns change, these walkways may be supplemented with a secondary system of pathways.

EXISTING CIRCULATION

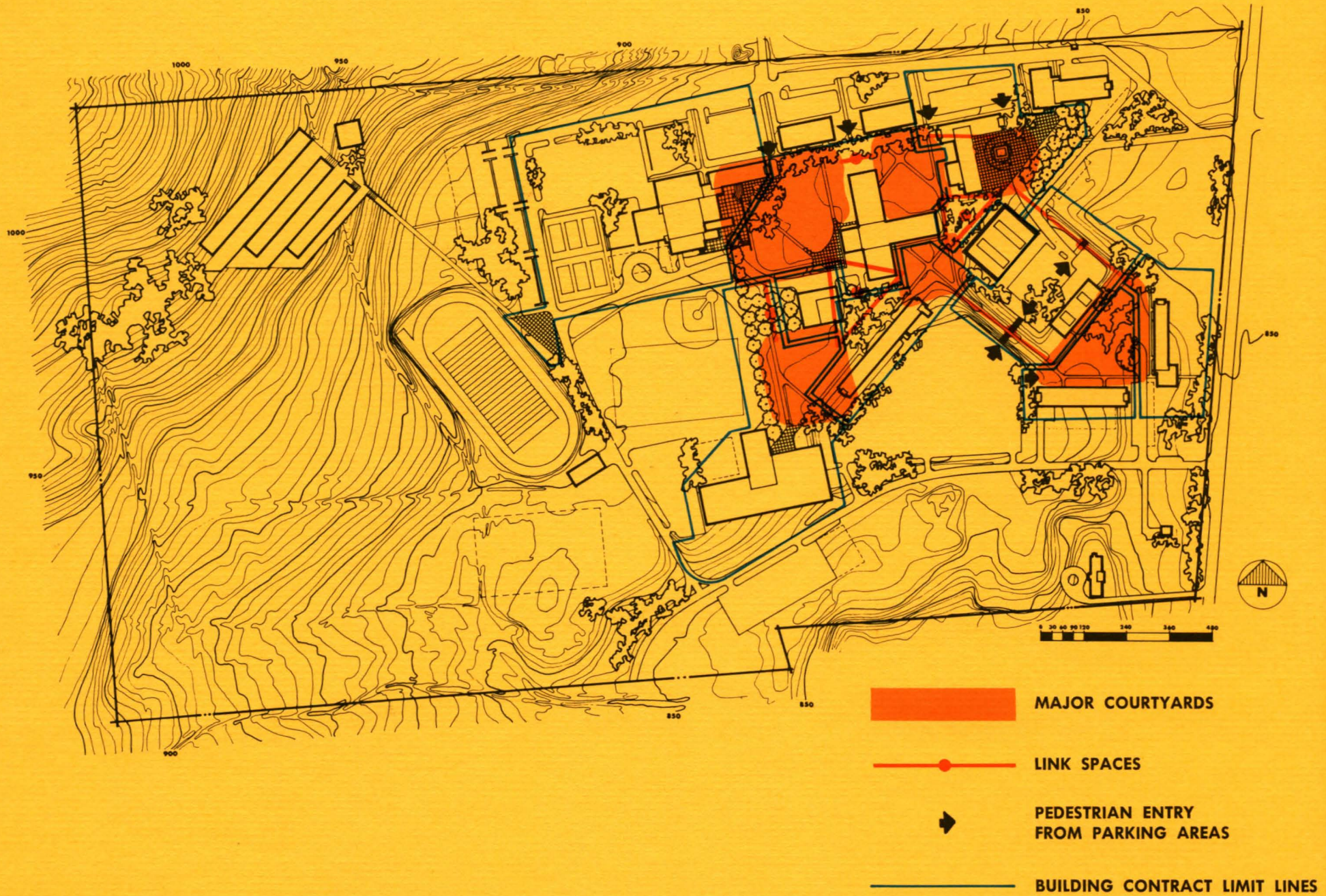


PROPOSED CIRCULATION



- MAJOR ROADWAYS
- SERVICE ROADS
- PEDESTRIAN PATHWAYS
- PARKING
- PARKING BEYOND 1974

PROPOSED OUTDOOR AREAS



OUTDOOR AREAS

The majority of existing College buildings are situated about a single major quadrangle of massive scale. The Library Building forms a small outdoor space as an adjunct to the major quadrangle, and Titchener Hall is located apart from any confined outdoor area. The predominant architectural style is of a two dimensional nature, planar and mechanical, employing brick and curtain wall construction. The one exception is the Library which is of concrete and glass and is three dimensional in nature with positive and negative volumes juxtaposed.

The proposed new buildings, building additions, and landscaping will be so situated as to divide the single major quadrangle into two spaces and create

several other confined outdoor areas throughout the campus. Linking spaces between the proposed campus courtyards will be used exclusively for circulation, while the courtyards themselves may be used for circulation, relaxation, outdoor classrooms, or student study areas in fair weather. Every building will face onto a landscaped space which will be directly accessible from the various parking areas at the periphery of the campus. The facades of the proposed buildings and additions shall be so designed as to accomplish a singular style that reflects both styles of the existing buildings. To insure development of outdoor spaces, the architects responsible for individual buildings should include this work as a portion of their contracts.

UTILITIES

Water System: The campus is presently served by a 6" main from Front Street and a 6" main from Hickory Road. There is an 8" main also from Front Street serving the present County buildings. It is our recommendation that these services be connected to form a complete loop within the campus and that branch lines be taken from that loop to new buildings as required.

Sanitary Sewer System: At present, the sanitary sewers from Titchener Hall and the Library conduct sewage by gravity to a pumping station which pumps it into the trunk sewer from existing County buildings which then flows by gravity to the Chenango River. The remainder of the buildings on campus have septic tanks and seepage pits for each building.

We are suggesting that new trunk sewers of the proper size be installed to serve all buildings, and that these be conducted to the sewage pump station for the time being, and that this station pump sewage into a large 20,000 gallon septic tank located across Front Street on County property. The septic tank effluent would then be chlorinated and piped to the river. In order to minimize the possibility of overloading the septic tanks, we are

suggesting that the existing septic tanks and tile fields remain in service as long as their capacity is not exceeded. When their capacity is exceeded by the expansion of the building and facilities served thereby, the house sewer from that building should be connected into the new trunk sewer and through the septic tank system described above. The reason for the foregoing is that it is anticipated that a municipal sewer system will be installed in Front Street within a very few years. At that time, the campus trunk sewers would either be connected into the municipal sewer to flow by gravity or, if the campus sewers are too low, the sewage lift station will be maintained to pump the raw sewage into the municipal system. The cost of this connection is not included in the budget.

Storm Sewers: The existing storm sewer system on campus will be expanded and extended to serve the new buildings. Some of the new buildings at the southwest end of the campus will be served by a new storm sewer system which will discharge into a new drainage ditch flowing into Cutler Pond.

Gas Service: Presently gas is distributed through underground mains on the campus at less than 1 psig. We propose that the present gas piping sys-

tem be connected together in a loop around the campus by extending existing lines, and that the existing service be increased to 5 psig to increase its capacity. Branches from this loop would be run to the new buildings.

Miscellaneous: Past practice on the campus has been to have individual heating plants for each building or group of two buildings close together. It is proposed to continue this concept with the new buildings, either gas or electrical energy being the primary energy source depending on building construction and use. In this connection, the present County Welfare building is heated by steam from the steam power plant in the existing County building complex. It will be necessary to provide new heating facilities for these buildings prior to demolition of the existing steam plant.

Electrical Distribution System: The present electrical distribution system on the campus is from free-standing metal-clad switchgear to various unit substations and vaults for electrical service to the existing buildings. This system will be modified to include an electrical "loop" utilizing as much as possible the existing underground cable and conduit and substations. Use of a "loop" system will

provide more reliability in electrical service and permit sectionalizing of the system for maintenance or replacement. It is proposed that the oil filled distribution transformers in two sidewalk vaults be replaced with subway type submersible transformers which are more consistent with the physical conditions of subterranean vaults. One vault location will have to be abandoned because it falls within the confines of the expansion of the Mechanical Technology Building. The electrical facilities necessary in this location could be incorporated within the building.

Telephone Service: Telephone service at present emanates from the Administration Building to each of the existing buildings on campus and with the incorporation of Centrex II is entirely adequate for future needs. The telephone equipment room in the Administration Building is large enough to allow for expansion consistent with this Master Plan, and conduit will be extended from this location to the new buildings.

Fire Alarm System: Presently each building on the campus has its own fire alarm system primarily for annunciation and evacuation of the premises in which the fire occurs. It is proposed to tie all

individual fire alarm systems together and annunciate in the Administration Building and automatically trigger the alarm of the Hinmans Corners Fire Company. This will entail extension of fire signal from each building to the Administration Building. The basic equipment within the campus is satisfactory for this function.

Program System: The program system which handles clock correction, utility control, and program change is a Simplex system and will be expanded similar to the present systems included in the campus using the latest type of equipment for the most functional control possible. There is one basic problem with the existing system in that the carrier signal necessary for operation of this equipment is not common to the whole program system. It is proposed that a carrier signal of ample strength be introduced on the incoming high voltage system adjacent to the switchgear on the north side of the College which would allow for a common signal to all program systems, including those now served by carrier signal generators and transmitters. By introducing this stronger common signal the intended functions of the program-system can be fully accomplished and expanded throughout the College.

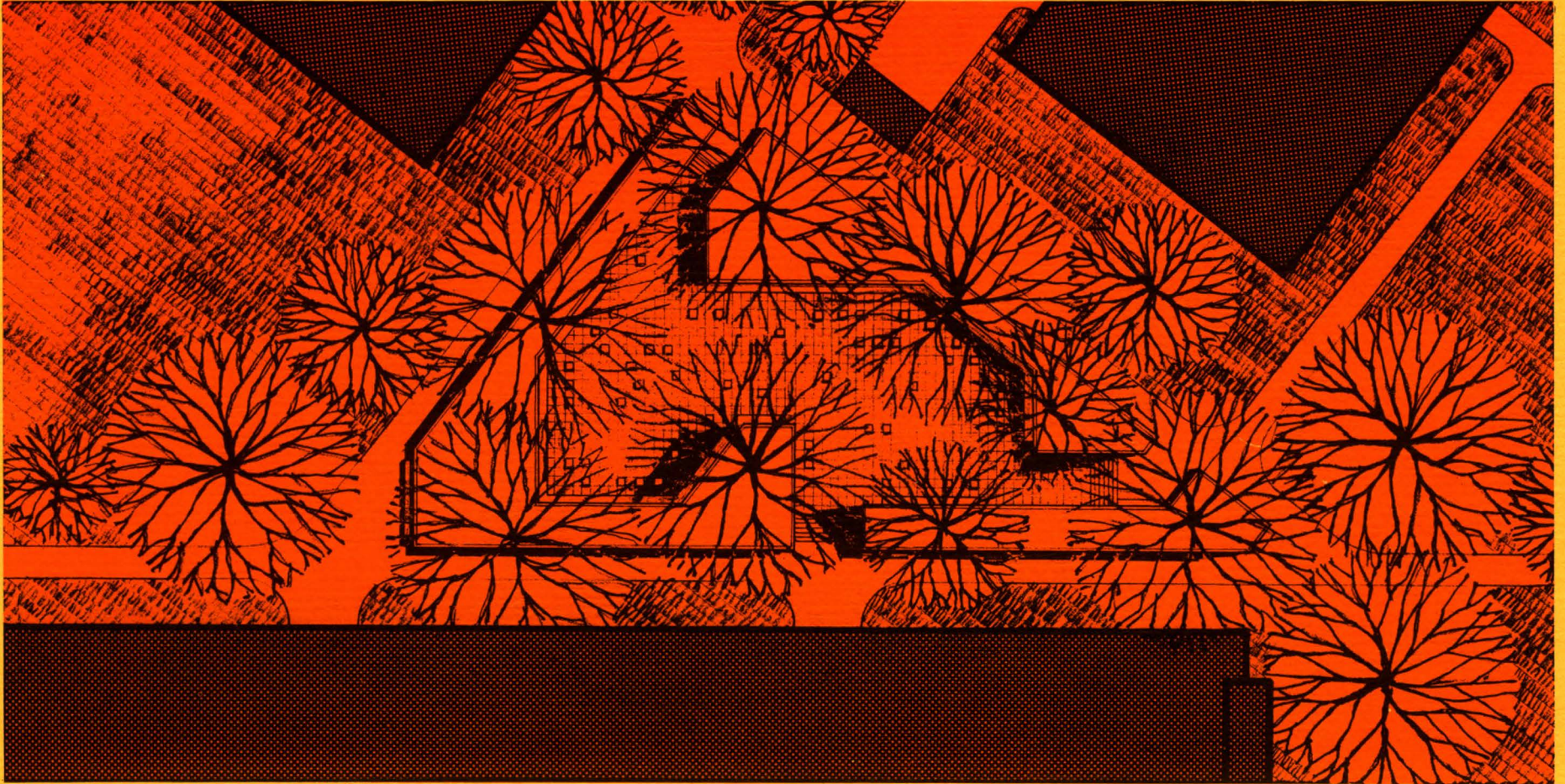
Lighting: Roadway lighting will be extended with mercury vapor luminaires on aluminum poles similar to what was installed in the last campus construction project. These poles will be spaced approximately 150 feet apart. Walkway lighting will be considered in those high traffic areas involved for night time use such as the quadrangles, approaches between the major parking areas, the Student Center, the Physical Education Building, etc. This walkway lighting will be of the low profile type approximately 10 feet from grade to the luminaire and be constructed of a rugged material to discourage vandalism.

Future Expansion: The proposed electrical loop system will allow for extension of service to areas not designated in this Master Plan, such as the dormitories and the County Health Complex. The electrical system has been selected so that it can accommodate the use of any source of fuel for building heating and/or cooling. The proposed loop systems for gas and water and the main sewer trunks will also allow for extension as outlined above. These lines will be designed to allow additional capacity for extension to the proposed County Health Complex.

UTILITIES







A detailed summary of the future space requirements has been completed in conjunction with the College staff and the Department of Educational Facilities for Two-Year Colleges of the State University of New York. The objective of this projection is to determine the types, numbers, and areas of all educational and educational support spaces needed by the College for a projected enrollment of 3,400 full-time day students. The Student Center alone was studied for a projected enrollment of 4,000 full-time day students. This summary only includes those spaces that are new or altered; no existing spaces are included. This information is also cross-referenced in the "Space Facilities Projection to 1974" report prepared for the State University of New York. All spaces are organized as to department and not to specific buildings. At the time when building programs are formulated, it should be noted that all buildings (1) shall be designed with the physically handicapped in mind, (2) should contain ample space for a central student lounge area, and (3) should have a loading dock and an internal refuse storage space.

LIBERAL ARTS

	Square Feet
A. Faculty Offices	
1. 1 division director	180
2. 4 department chairmen @ 180 sq. ft.	720
3. 60 faculty @ 120 sq. ft.	7,200
4. 8 clerical @ 80 sq. ft.	640
B. Teaching Stations	
1. 8 classrooms @ 512 sq. ft.	4,100
2. 1 fine arts lab & storage	1,500
Total Net Area	14,340
Ratio, Net Area:	
Gross Area = 1.50	
TOTAL GROSS AREA	<u>21,510</u>

BUSINESS

A. Faculty Offices	
1. 1 division director	180
2. 4 department chairmen @ 180 sq. ft.	720
3. 60 faculty @ 120 sq. ft.	7,200
4. 10 clerical @ 80 sq. ft.	800
B. Teaching Stations	
1. 3 typing labs @ 1,000 sq. ft.	3,000
2. 3 office practice labs @ 1,200 sq. ft.	3,600
3. 6 classroom-accounting labs @ 800 sq. ft.	4,800
4. 2 classrooms for 32 students @ 512 sq. ft.	1,024
5. 1 lecture hall for 70 students	830
6. 1 lecture hall for 120 students	1,450
Total Net Area	23,604
Ratio, Net Area:	
Gross Area = 1.50	
TOTAL GROSS AREA	<u>35,405</u>

HEALTH SCIENCES

A. Faculty Offices	
1. 1 division director	180
2. 4 department chairmen @ 180 sq. ft.	720
3. 60 faculty @ 120 sq. ft.	7,200
4. 10 clerical @ 80 sq. ft.	800
B. Teaching Stations	
1. 1 lecture hall for 120 students	1,450
2. 2 lecture halls for 70 students @ 835 sq. ft.	1,670
3. 5 classrooms @ 512 sq. ft.	2,560
4. 1 histology & embryology lab for 18 students, prep room not required	900
5. 2 biology labs for 18 students @ 900 sq. ft. prep	1,800
	420

6.	2 micro-biology labs for 18 students @ 900 sq. ft.	1,800
	prep	420
7.	3 anatomy physiology labs for 18 students @ 900 sq. ft.	2,700
	prep	420
8.	2 clinical labs for 12 students @ 600 sq. ft.	1,200
	prep	420
9.	3 environmental health labs for 12 students @ 600 sq. ft.	1,800
10.	2 radiological labs for 10 students @ 500 sq. ft.	1,000
11.	2 specialized nursing labs @ 1,000 sq. ft.	2,000
12.	1 medical office procedures room for 12 students	600
	prep	200
13.	1 zoology lab for 18 students	900
14.	1 field biology lab for 18 students	900
15.	cold room	500
16.	greenhouse	500
17.	boat storage room	500
18.	animal room	600
19.	dirt room	500
20.	central stock room	900
21.	media prep room	900
22.	storage room	900
23.	repair room	600
24.	dental hygiene facilities	
	a. faculty offices	
	1. 1 department chairman	180
	2. 1 associate chairman	140
	3. 5 faculty @ 120 sq. ft.	600
	4. 1 clinical practice waiting room	600
	b. teaching stations	
	1. dental anatomy lab for 32 students	1,600
	storage	420
	2. dental hygiene clinic	1,300
	storage	420

3.	model dental office	200
4.	dental hygiene x-ray lab for 8 students	400
	Total Net Area	43,820
	Ratio, Net Area:	
	Gross Area = 1.64	
	TOTAL GROSS AREA	71,865
	NEW BUILDING AREA	58,000
	EXISTING AREA TO BE ALTERED	10,000
	BUILDING ADDITION AREA	3,865

CHEMISTRY

A.	Faculty Offices	
	1. 1 department chairman	180
	2. 26 faculty @ 120 sq. ft.	3,120
	3. 5 clerical @ 80 sq. ft.	400
B.	Teaching Stations	
	1. 6 general chemistry labs for 18 students or	
	3 general chemistry labs for 35 students @	
	50 sq. ft./student	5,260
	3 prep & storage @ 420 sq. ft.	1,260
	2. 1 quantitative chemistry lab for 24 students	1,200
	prep and storage	420
	3. 1 organic chemistry lab for 32 students	1,600
	prep and storage	420
	4. 1 industrial chemistry lab for 16 students	800
	prep and storage	180
	5. 2 instrumental chemistry labs for 16 students	
	@ 800 sq. ft	1,600
	storage and prep	420
	6. 1 radio-chemistry lab for 16 students	800
	storage	420
	7. faculty work room	560

8. 3 classrooms for 32 students @ 512 sq. ft.	1,536
9. 1 lecture hall for 120 students	<u>1,450</u>
Total Net Area	21,626
Ratio, Net Area:	
Gross Area = 1.64	
TOTAL GROSS AREA	<u>35,466</u>

CIVIL TECHNOLOGY

A. Faculty Offices	
1. 1 department chairman	180
2. 4 faculty @ 120 sq. ft.	480
3. 2 clerical @ 80 sq. ft.	160
B. Teaching Stations	
1. soils and concrete lab	900
2. photogrammetry lab	500
3. surveying lab	1,000
4. storage between photogrammetry and surveying labs	420
5. 2 construction labs @ 1,000 sq. ft.	2,000
6. 2 storage rooms @ 400 sq. ft.	<u>800</u>
Total Net Area	6,440
Ratio, Net Area:	
Gross Area = 1.64	
TOTAL GROSS AREA	<u>10,560</u>

POLICE SCIENCE

A. Faculty Offices	
1. 1 department chairman	180
2. 3 faculty @ 120 sq. ft.	360
3. 1 clerk	80
B. Teaching Stations	
1. 1 classroom	512

2. 1 classroom with vehicular access to adjacent outdoor teaching area	872
3. 1 lecture hall for 70 students	830
4. 1 general laboratory for 35 students	700
storage	400
5. small gymnasium	900
locker room for 50 @ 6 sq. ft./person	300
shower—drying area	
6. shooting range for 6 positions	4,000
7. maximum security armory storage	<u>500</u>
Total Net Area	9,784
Ratio, Net Area:	
Gross Area = 1.64	
TOTAL GROSS AREA	16,045
EXISTING AREA TO BE ALTERED	4,000
NEW CONSTRUCTION AREA REQUIRED	<u>12,045</u>

ADMINISTRATION I

A. Faculty Offices	
1. 23 business faculty and staff @ 120 sq. ft.	2,760
2. extension division faculty and staff	1,900
B. Teaching Stations	
1. business laboratories	1,800
2. 3 classrooms @ 700 sq. ft.	2,100
C. Supplementary Activities	
1. health services suite	2,000
2. administrative offices	<u>3,325</u>
Total Net Area	13,885
Ratio, Net Area:	
Gross Area = 1.50	
TOTAL GROSS AREA	20,827
EXISTING AREA TO BE ALTERED	5,000
NEW CONSTRUCTION AREA REQUIRED	<u>15,827</u>

ADMINISTRATION II

A. Faculty Offices	
1. extension division faculty and staff	2,500
B. Administrative Spaces	
1. student personnel services	4,200
2. duplicating center	1,900
C. Supplementary Activities	
1. health services suite	1,960
Total Net Area	<u>10,560</u>
Ratio, Net Area:	
Gross Area = 1.50	
TOTAL GROSS AREA TO BE ALTERED	<u><u>15,840</u></u>

STUDENT CENTER I

Student Dining for 560 @ 10 sq. ft./person	5,600
Total Net Area	5,600
Ratio, Net Area:	
Gross Area = 1.25	
TOTAL AREA	7,000

STUDENT CENTER II

A. Food Service	
1. storage & dishwashing @ 4.6 sq. ft./diner	7,176
2. student dining for 840 (in present gymnasium)	10,000
3. faculty dining for 160	1,820
4. kitchen for 1,560 @ 4 sq. ft./diner	6,240
5. snack bar	1,500
6. dining and meeting rooms (4)	1,500
B. Bookstore	
1. bookstore	1,432
2. storage with access to loading dock	1,596

C. Little Theater	
1. auditorium	2,494
2. stage	1,760
3. rehearsal, workshop, storage	1,528
4. dressing rooms and storage	400
5. lobby	1,000
6. tiered rehearsal room	1,000
D. Student Lounge	2,000
E. Coat Room	286
F. Organized Activity Areas	
1. Tech Talk	600
2. The Citadel	600
3. dark room and photo activities	400
4. band and chorus rehearsal area	900
G. Staff Area	
1. coordinator's office	160
2. secretarial area	120
3. information and reservation area	90
4. communication center	200
5. storage	400
H. Individual Activity Areas	
1. games area (2 billiard tables, 10 (card-sized) tables, 2 ping pong tables)	2,000
2. publicity workshop	1,000
3. storage	800
4. t.v. area	800
5. music area	800
Total Net Area	<u>50,602</u>
Ratio, Net Area:	
Gross Area = 1.50	
TOTAL GROSS AREA	<u>75,903</u>
EXISTING AREA TO BE ALTERED	<u>34,314</u>
NEW CONSTRUCTION AREA REQUIRED	41,589

PHYSICAL EDUCATION

A. Estimate of station capacity (required physical education and professional program)

Indoor

	Students Per Station
1. main gymnasium	
a. badminton (4 courts)	
basketball (court)	12 - 20
b. volleyball (3 courts)	
archery, basketball	12 - 36
c. gymnastics, tumbling	15 - 30
d. fencing, judo	20 - 30
2. swimming pool	20 - 30
3. wrestling room	20 - 30
4. physical fitness & weight training room (stage?)	15 - 20
5. dance studio	20 - 30
6. handball & squash courts (5)	10 - 20
7. classroom	20 - 32
8. classroom	20 - 32
	<hr/> 184 - 310
9. bowling (outside alleys)	15 - 50
TOTAL STUDENTS	<hr/> <u>199-360</u>

B. Physical Education Program

1. main gymnasium (120' x 180' x 24')	21,500
storage	3,225
2. swimming and diving pool excluding spectator area (62' x 115' — pool 42' x 75' x 24' high)	6,000
spectator area, additional	1,150
3. wrestling room (44' x 44' x 12' high)	1,936

4. physical fitness and weight training room (44' x 44' x 12' high)	1,936
5. dance studio (56' x 56' x 22' high)	3,136
6. handball, squash courts (5 courts) @ (24' x 32' x 20' high)	3,840
7. two classrooms and audio-visual rooms (30' x 20')	1,200
8. training and first aid room-steam room	632
9. additional areas	
a. main lobby	2,000
b. reception and meeting room	600
c. general offices	
(1) steno office	300
(2) receptionist	150
(3) waiting room	300
(4) duplicating room	250
d. 10 faculty offices @ 120 sq. ft.	1,200
e. locker rooms	
(1) men's locker room for 175 @ 6 sq. ft./person	1,050
storage for 175 @ .6 sq. ft./person	105
shower-drying area	360
(2) women's locker room 175 @ 6 sq. ft./person	1,050
storage for 175 @ .6 sq. ft./person	105
shower-drying area	360
(3) men's faculty locker room for 60 @ 6 sq. ft./person	360
storage for 60 @ .6 sq. ft./person	36
(4) women's faculty locker room for 60 @ 6 sq. ft./person	360
storage for 60 @ .6 sq. ft./person	36
(5) varsity team rooms	
a. men's for 100 @ 6 sq. ft./person	600
storage for 100 @ .6 sq. ft./person	60

b. women's for 60 @ 6 sq. ft./person	360
storage for 60 @ .6 sq. ft./person	36
(6) visiting team rooms	
a. men's for 60 @ 6 sq. ft./person	360
b. women's for 30 @ 6 sq. ft./person	180
f. equipment control room	
(1) equipment storage and issue	100
(2) laundry	300
(3) drying	300
(4) storage	400
(5) reconditioning	200
Total Net Area	56,073
Ratio, Net Area:	
Gross Area = 1.42	
TOTAL GROSS AREA	<u>79,625</u>

MAINTENANCE

A. Offices	
1. supervisor's office	155
2. supply-clerk's office	155
B. Shops	
1. carpentry shop	400
2. general shop	600
3. paint shop	400
C. Storage	
1. 12 vehicular garages @ 300 sq. ft.	3,600
2. garden equipment storage	400
3. maintenance storage (tools, etc.)	300
4. central supply-storage with access to loading dock	2,200
Total Net Area	<u>8,210</u>

Ratio, Net Area:

Gross Area = 1.33

TOTAL GROSS AREA	10,920
EXISTING AREA TO BE ALTERED	4,836
NEW CONSTRUCTION AREA REQUIRED	<u>6,084</u>

COUNTY COMMUNICATION CENTER

A. Police and Fire Communications	2,828
B. Civil Defense Communications	<u>1,414</u>
Total Net Area	4,242
Ratio, Net Area:	
Gross Area = 1.14	
TOTAL GROSS AREA	<u>4,836</u>

PARKING

	By 1974	By 1978	Total
A. Summary of Needs			
1. total students	2,698	3,400	3,400
2. total spaces needed			
car : student ratio = 0.67 : 1	1,800	2,300	2,300
3. existing spaces	1,234	1,800	
4. additional spaces required	566	500	
B. Summary of Spaces			
1. library	120	10	130
2. administration turnaround	12	0	12
3. Titchener	20	0	20
4. administration	75	0	75
5. liberal arts	90	0	90

6. electrical	55	0	55
7. student center — n. e.	95	0	95
8. student center — n. w.	180	0	180
9. student center — west	180	80	260
10. student center turnaround	5	0	5
11. maintenance	13	0	13
12. physical education — west	100	0	100
13. physical education — south	130	40	170
14. business — south	520	0	520
15. health sciences — south	0	50	50
16. north entry	0	70	70
17. north roadway	185	0	185
18. west roadway	0	80	80
19. south roadway	0	150	150
20. health sciences roadway	20	20	40
	1,800	500	2,300

Note: All figures indicate existing and total spaces combined.

MASTER PLAN CRITERIA

At the onset of the design stage of the Master Plan development, several space and form criteria were suggested as guidelines. These were limited to Buildings, Spaces, Landscaping, and Circulation. As the design evolved compromises were made, but the general integrity of the outline was followed. It is inevitable that the exact design of the Proposed Master Plan will not be realized because of the ever changing requirements of the College and because of the duration of time to completion. Hence, these criteria may serve as a guideline for design for future modifications of the Master Plan as well as for the design of individual projects which are presently contemplated.

I. Building Framework

- A. Distribution — all structures shall be placed according to the existing campus grids; these include:
 1. the grid of the academic, administration, and student center buildings
 2. the grid of the existing library building
 3. the grid of the existing welfare building
- B. Function — all structures shall perform one of two or a combination of two functions:
 1. background structures — background structures shall be space definers, strengthening boundaries; shall be planar; and have a repetitive exterior surface texture, color, shape and size
 2. focal structures — focal structures shall have a unique and contrasting shape, size, color, texture, or material from their topologically proximate background functions; the activity within and/or outside the structure should also be unique in order to provide greater justification for a unique design function
- C. Surface treatment — material may be restricted to:
 1. main surface material — concrete, brick or concrete-brick combination
 2. fenestration — metal, anodized frames and colored glass lites for sun control

II. Space Framework

- A. Distribution of sizes — the campus shall contain a hierarchy of spaces with at least one, and possibly only one, major space and several minor spaces interconnected with, and radiating from, the major space(s)

- B. Function — all spaces shall be associated with a specific activity either of the surrounding structures or of the space itself:
 - 1. major spaces shall contain, or be surrounded by, activities which are more common to a greater number of participants
 - 2. minor spaces shall contain, or be surrounded by, activities which are specific to a select and minor group or groups
- C. Shape Variation — as a natural result of the imposed restriction of a multiple building grid system, the shapes of spaces shall be able to vary from the rectangular norm
- D. Formality
 - 1. major spaces — the disposition of forms in major spaces shall be formal
 - 2. minor spaces — the disposition of forms in minor spaces may be either formal or informal
 - 3. transition — the transition from formal to informal spaces shall be gradual; this may be achieved by:
 - a. the use of an intermediate space
 - b. an intermingling of formal and informal disciplines in one or both of the spaces in the vicinity of juncture
 - c. the placement of an object or objects so as to focus attention away from, or specifically to, the transition
- E. Distribution of Levels — an attempt shall be made to provide a variation in the ground plane between and among spaces so as to:
 - 1. provide a differentiation in the bounds of spaces.
 - 2. provide a variation in the experience of traversing between spaces
 - 3. provide a variation in scale from within the spaces themselves

III. Landscaping Framework

A. Land as Form

- 1. function — berms and land forms shall:
 - a. define space as background forms
 - b. screen areas as parking lots, play fields, etc.
 - c. provide focal points for a space from within or outside of the space
- 2. distribution — berms shall be placed according to the existing building grids of the campus
- 3. shape
 - a. the slope of the sidewalls and the height may vary; however, the slope must be gentle enough to retain its own shape and support greenery
 - b. all background forms may be either geometric or free form
 - c. all screen and focal forms may be either geometric or free form
- 4. surface treatment
 - a. surface material may be restricted to:
 - (1) grass
 - (2) rubble
 - (3) foliage — as trees, shrubs, and ground cover
 - b. land forms functioning as background forms shall be planar, having a uniform, repetitive material of even texture and color
 - c. land forms functioning as focal points shall have a unique and contrasting shape and/or size and have surface materials unique in color, size, shape, and/or texture
 - d. land forms functioning as screens may act as either background forms or focal points

B. Vegetation

1. function

- a. vegetation may serve an architectural function as a background form or a focal point
- b. vegetation may serve a purely scenic function

2. distribution

- a. vegetation may be placed architecturally with the campus grids to accentuate them, or against the campus grids to contrast them
- b. vegetation may be placed free-form as a focus or as scenery

3. surface treatment

- a. although the nature of existing soils would suggest the more favorable growing conditions for evergreens, no limitation shall be made on the types of trees, shrubs, or ground cover
- b. vegetation functioning as background form shall be planar having a unique size, shape, color, and texture
- c. vegetation functioning as a focal point shall have a unique and contrasting size, shape, color, and/or texture to surrounding vegetation and/or buildings
- d. vegetation functioning informally as screening shall not have to conform to any formal rules

C. Campus Furniture

1. scope — campus furniture connotes all man-made objects not included in the above classifications, except roadways

2. types and description

- a. exterior lighting — a differentiation shall be made between roadway lighting and pathway lighting
 - (1) pathway lighting shall be of an intimate nature, low in profile, and of a constant design compatible with the architecture and landscaping

- (2) roadway lighting shall be of a design which is compatible with existing roadway lamps; lighting for parking areas should be of the same style

b. communications towers

- (1) expansion of tower facilities shall be in the same general location as existing towers
- (2) towers shall be metal space frame construction of necessary size and shape to accept their function

c. benches, planters, trash receptors, water fountains

- (1) benches and containers for planting, trash receptors and water fountains shall be made of concrete; benches may have slatted wood seats and backs
- (2) each separate space shall have a constant design; the overall design of such objects throughout the campus may or may not be constant

d. sculpture

- (1) there shall be no rules governing conformity of sculptural pieces
- (2) several pieces of sculpture shall be included by the conclusion of the Master Plan project by space planners

e. signs

- (1) building signs shall be made of dark colored anodized aluminum letters and affixed directly to the structures; all letters shall be the same style on all buildings, walls, etc.; the height of the letters may vary if necessary
- (2) directional signs shall be standard
- (3) college identity signs shall be placed at each entry to the campus

IV. Circulation Framework

- A. Campus Roadway System — campus roadways shall be the transportation link between the public roadways and the campus parking areas, and the service links to all campus buildings
 - 1. major roadways
 - a. shall be linked together in such a way as to form a ring around the periphery of the proposed campus
 - b. shall be wide enough to accommodate traffic in two directions
 - c. shall be laid out to take advantage of major campus vistas and views
 - d. shall at no time bisect pedestrian pathways
 - e. shall provide direct access to parking areas
 - f. shall provide direct access to the public roadway system in at least two locations
 - 2. minor roadways
 - a. shall provide service access to all buildings
 - (1) this may be included in parking areas; however, if service is proposed from parking areas, the two functions shall be arranged to insure separation.
 - (2) service access may be incorporated with pedestrian pathways only where roadway access is absolutely impossible
 - b. shall provide for turnaround areas for buildings and spaces where necessary for discharging and picking up passengers
- B. Parking Areas
 - 1. shall be directly accessible to major roadways
 - 2. shall directly feed pedestrian pathways to the campus
 - 3. at no time shall pedestrians have to cross major roadways from parking areas to reach pedestrian pathways

- C. Bus Stops
 - 1. provision shall be made for the pickup and discharge of students at several locations
 - 2. sheltered waiting areas shall be provided at all bus stop locations
 - 3. busses shall be routed so as not to conflict with the vehicular circulation system of the campus
- D. Pedestrian Pathways
 - 1. shall provide for pedestrian movement to and from parking areas, buildings, and outdoor areas
 - 2. shall be laid out according to the formality of the space
 - 3. shall follow as closely as possible the natural lines of movement of the pedestrian
 - 4. permanency of location
 - a. re-locable pathways
 - (1) shall follow the natural lines of pedestrian movement to such a degree as to be relocated when necessity requires
 - (2) shall be made of asphalt paving
 - b. formal pathways
 - (1) shall follow a rigid pattern of pedestrian movement that shall reflect the formality of the campus layout
 - (2) shall be made of concrete of sufficient strength to support service vehicles where necessary
 - (3) shall be linked in with the service roadway system where necessary
- E. Squares
 - 1. shall be paved areas
 - 2. shall serve one of two functions

- a. relaxation function
 - (1) shall be paved areas apart from the pedestrian circulation network
 - (2) shall have no major pedestrian circulation through the space
- b. distribution function
 - (1) shall be paved areas serving collection and distribution of pedestrians as a circulation hub
 - (2) all happenings in the space shall be active

Evaluation of the Present Student Center-Physical Education Building

As a portion of the Master Plan Study, a comprehensive use determination study was undertaken of the present Student Center-Physical Education Building. The alternatives of the study were to convert the present building to either the Student Center function or the Physical Education function. The final recommendation to alter and expand the building for Student Center use and to displace the Physical Education function to a new building was based on the following findings:

A. Physical Characteristics of the Present Building

1. Existing method of construction limits the amount of flexibility in the re-distribution of spaces as to size and shape.
2. Most spaces, including the Little Theater, Gymnasium, dining facilities, locker areas, are large.
3. Any expansion with large ground area measurements is limited by rather permanent surrounding land uses such as parking, athletic fields, and site boundaries.
4. Some parking around the building is existing; however, there is not much surrounding flat ground area for parking lot expansion.

B. Considerations for Conversion to a Student Center

1. On the whole existing spaces are fragmented in size and, therefore, more flexible; shapes of spaces of the new program are not very critical.
2. Little Theater stage and backstage facilities can be made adequate in their present location.
3. The Student Center facility is an expanding function that grows with the student body; it should be housed in a facility that will not suffer from expansion.
4. Although the location of the present building is remote from the campus center, a more central location seems unlikely due to the existing building locations and other site characteristics as boundaries, topography, and circulation patterns.

C. Considerations Against Conversion to a Physical Education Building

1. Present gymnasium is inadequate for the College's needs.
2. Many spaces needed for Physical Education facilities must be large and of a predetermined, inflexible shape.
3. Physical Education facilities should be placed in a location with a great deal of unused flat land which can accommodate athletic fields.
4. Because of the need for large spaces with a high use rate, new mechanical systems would have to be provided to supplement existing equipment.
5. The present location cannot meet the need for a large number of parking spaces and direct vehicular access.
6. The existing ground water table is extremely high making subsurface and heavy construction costly.

BUDGET

The following budget has been prepared for Project I and Project II, both separately and cumulatively. The Project I costs are based on building costs in 1970 and Project II in 1971. Costs were assumed as averages suggested by the State University of New York, Department of Educational Facilities for Two Year Colleges and escalated at 5% per year to 1970 and 1971. These figures also include costs for air conditioning of spaces where specifically required. It is recognized a critical need of the College is for space designed for flexibility of use to allow for continuing alteration and modification. A search for such a construction system might well lead to the use of a repetitive building style or even space modules, which could result in a lowering of construction costs below that being projected.

Project I		
Physical Education — new	2,338,600	
Business — new	973,600	
Chemistry — new	1,195,200	
Health Sciences I — new	1,954,600	
Mechanical Technology — addition	165,000	
Student Center I — addition	229,300	
Administration I — addition & alteration	520,700	
Civil Technology — addition	295,700	
Police Science — addition & alteration	399,300	
Maintenance — addition & alteration	200,200	
Temporary Classroom — relocation	16,000	
Total Building Cost		8,288,200
Site Preparation	395,190	
Utilities	600,000	
Total Site Cost		995,190
Total Equipment Cost		1,160,000

Architects' and Engineers' fees	760,300	
Construction Supervision	15,000	
Total Fees		775,300
TOTAL		11,218,690
Contract Reserve 5%		<u>560,900</u>
TOTAL PROJECT I COST		11,779,590

Project II		
Liberal Arts — alteration	347,200	
Student Center II — addition & alteration	2,066,500	
Health Sciences II — addition & alteration	332,400	
Administration II — alteration	216,000	
Total Building Cost		2,962,100
Total Site Cost		151,890
Total Equipment Cost		613,500
Architects' and Engineers' fees	271,600	
Construction Supervision	20,400	
Total Fees		292,000
TOTAL		4,019,490
Contract Reserve 5%		<u>200,900</u>
TOTAL PROJECT II COST		4,220,390
TOTAL COST PROJECT I and II		15,999,980

The total cost for both projects does not include several items. Among these are the Master Plan fee, Land and Building Acquisition costs, demolition work, professional estimators' fee, coordinating architect's fee, and a break-down of the State of New York and Broome County's share in the project.

Credits

ARCHITECT: Leonard J. Robilotti, A.I.A.
Binghamton, New York

Project Captain: Peter J. M. Trozze

ENGINEER: St. John Associates,
Consulting Engineers
Vestal, New York

Partner-in-Charge: Howard Ward, P.E.

GRAPHIC DESIGN: Creative Services
Vestal, New York

Project Captain: Thomas Yacovella